

AR17


# Northgate

EXPLORATION LIMITED

ANNUAL REPORT 1977







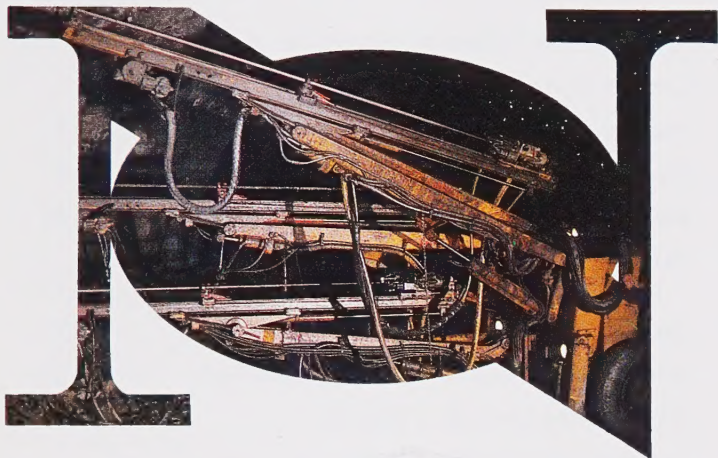
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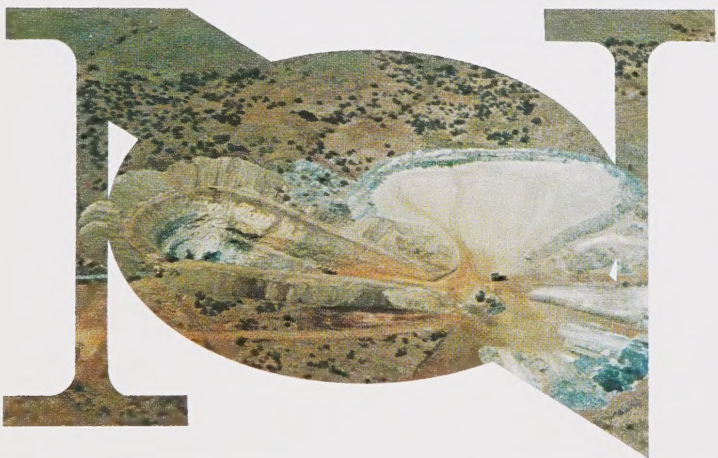




*Tynagh Mine, County Galway, Republic of Ireland, operated by Irish Base Metals Limited, wholly owned subsidiary of Northgate Exploration Limited. From 1965 to 1977 approximately 7.7 million tons of ore mined and some 1.5 million tons of concentrates produced.*



*Navan zinc-lead mine, County Meath, Republic of Ireland, being operated by Tara Mines Limited, 75% owned by Tara Exploration and Development Company Limited. Northgate has approximate 10% equity interest.*



*Whundo open pit, Western Australia. Scene of modest open pit operation during 1976 with the extraction of 6,000 metric tons of direct shipping ore containing an estimated 3.2 million lbs. of copper. Whim Creek Consolidated N. L. operated the mine. Northgate has 31.5% equity interest in Whim Creek.*



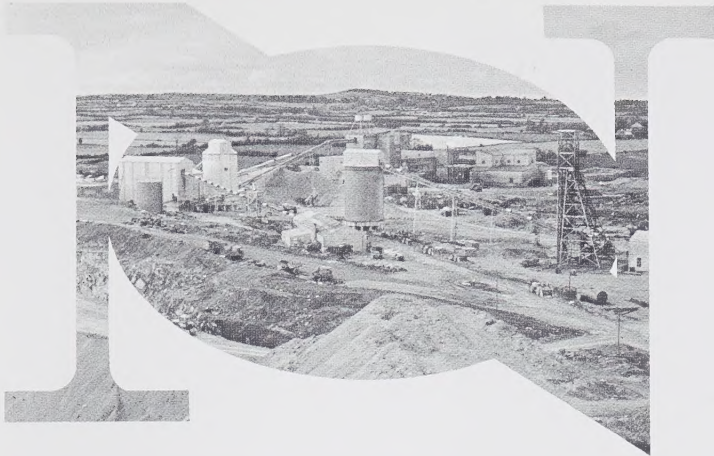
*Black Angel Mine, West Greenland, operated by Greenex A/S, wholly owned subsidiary of Vestgron Mines Limited. Northgate owns a combined direct and indirect interest in Vestgron of approximately 9.6%*



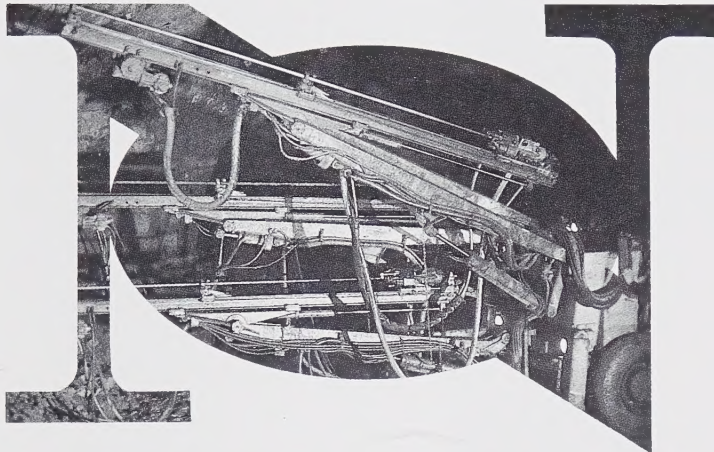
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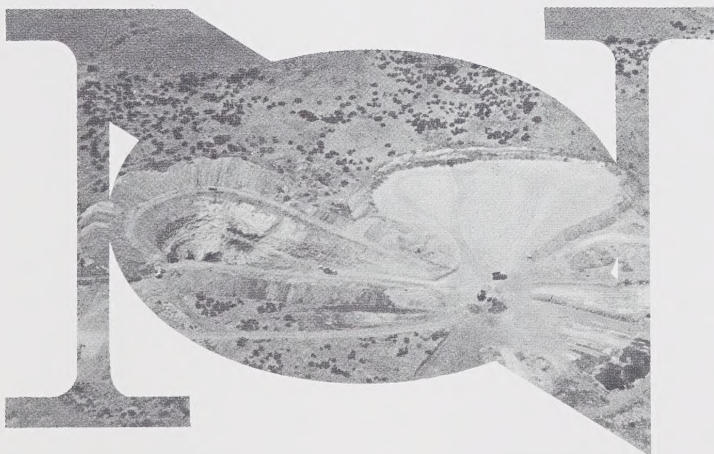




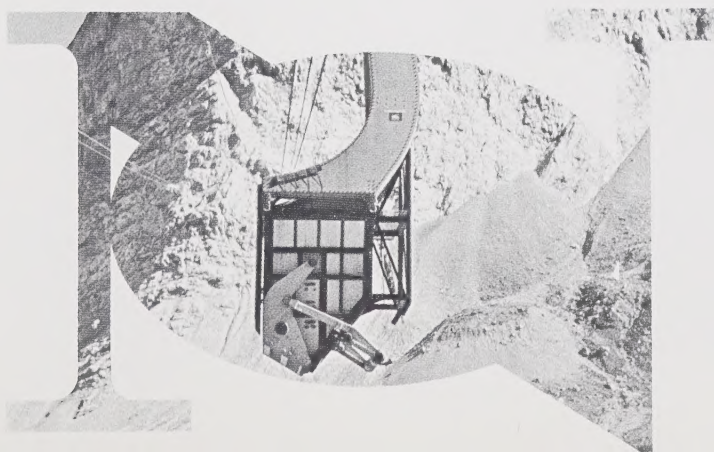
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*Black Angel Mine, West Greenland, operated by Greenex A/S, wholly owned subsidiary of Vestgron Mines Limited. Northgate owns a combined direct and indirect interest in Vestgron of approximately 9.6%*



## Financial Highlights

	1977	1976*
Net smelter value	\$13,908,000	\$11,608,000
Mine operating income (before w.o.'s)	3,001,000	2,628,000
Investment income	2,102,000	2,435,000
Exchange gains	30,000	315,000
Depreciation and amortization	2,353,000	2,562,000
Net income (loss) Per share	(590,000) \$(0.085)	(598,000) \$(0.09)
AT YEAR END		
Working capital	\$26,366,000	\$27,439,000
Ratio of current assets to current liabilities	4.2 to 1	6.1 to 1
Total assets	56,120,000	56,648,000
Shareholders' equity	46,339,000	48,779,000
Investments	18,127,000	18,194,000
Fixed assets	16,117,000	15,981,000
Less accumulated depreciation	13,272,000	11,741,000
	2,845,000	4,240,000
Weighted average number of shares outstanding during the period used in computing earnings per share	6,891,699	6,891,699

## Production Highlights

	1977	1976
<b>Tynagh Mine</b>		
<b>Tons of ore treated</b>	616,388	594,823
<b>Production of concentrates</b>		
Tons of lead concentrates	25,053	26,847
Tons of zinc concentrates	27,491	25,797
Tons of bulk concentrates	5,309	3,455
Tons of copper concentrates	1,648	2,961
Total tons of concentrates	59,501	59,060
<b>Payable metals contained in concentrates sold</b>		
Lead (lbs)	37.0 million	38.0 million
Zinc (lbs)	20.9 million	26.6 million
Copper (lbs)	0.1 million	0.8 million
Silver (ozs)	512,000	482,000

NOTE: \* Certain of the 1976 figures have been restated.



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DUBLIN OFFICE	Irish Base Metals Limited — Gortdrum Mines (Ireland) Limited 162 Clontarf Road, Dublin 3, Republic of Ireland Telephone: 332211, Telex 5881
LONDON OFFICE	Northgate Metals and Minerals Limited 30 St. George Street, London W1R 9FA, England Telephone: 01-491-7531, Telex 267615
AUDITORS IN CANADA	Thorne Riddell & Co., Chartered Accountants Toronto, Canada
AUDITORS IN IRELAND	Griffin, Lynch & Co., Dublin, Republic of Ireland
BANKERS	The Toronto-Dominion Bank, Toronto, Canada Bank of Nova Scotia, Toronto, Canada Allied Irish Banks, Dublin, Republic of Ireland Morgan Guaranty Trust Company
TRANSFER AGENTS	CANADA — Crown Trust Company Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia UNITED STATES OF AMERICA — The Bank of New York, New York, N.Y. UNITED KINGDOM — Charter Consolidated Limited, Ashford, Kent, England
REGISTRARS	CANADA Canada Permanent Trust Company Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia UNITED STATES OF AMERICA The Bank of New York, New York, N.Y. UNITED KINGDOM Morgan Grenfell & Co., Limited, London, England
SOLICITORS	Fasken & Calvin, Toronto, Canada Olin, Murphy, Manuel & Lynch, New York, U.S.A. Whitney, Moore & Keller, Dublin, Republic of Ireland
STOCK EXCHANGE LISTINGS	New York Stock Exchange, New York, U.S.A. The Stock Exchange, London, England Toronto Stock Exchange, Toronto, Canada



# PRESIDENT'S REPORT TO SHAREHOLDERS

## Financial Results

The financial results for the year 1977 show a consolidated net loss, after an extraordinary item, of \$590,000 equal to 8.5¢ per share compared with a similar net loss in 1976 of \$598,000 or 9¢ per share. The extraordinary item in 1977 was an income tax reduction, amounting to \$178,000 or 2.5¢ per share realized through the application of prior years' capital and other allowances. The loss before the extraordinary item was \$768,000 equal to 11¢ per share.

Net revenue from the sale of metal and metal concentrates amounted to \$13,908,000 against \$11,608,000 (restated) in the previous year. This improvement in revenue was, however, substantially offset by an increase in operating expenses from \$11,542,000 (restated) to \$13,260,000 due principally to general increases in the cost of labour, materials and services. The increase in revenue was mainly attributable to the improvement in the lead price which, however, was reduced by the adverse effect of the decline in the zinc price.

One of the major factors contributing to the net loss incurred in 1977 was the substantial increase in exploration

expenditures from \$1,541,000 (restated) in 1976 to \$2,371,000 in 1977, an increase of \$830,000 which reflected the higher level of exploration activity in Ireland and Canada during the year.

Working capital at December 31, 1977 was \$26,366,000 compared with \$27,439,000 (restated) at the previous year end. The principal factor in the \$1,073,000 reduction in working capital was the dividend payment during the year amounting to \$1,850,000. The dividend of U.S. \$0.25 per share was paid in October, 1977.

## Tynagh Mine

Studies have recently been carried out on continuing production from the remaining mining reserves of the Tynagh Mine under existing economic conditions. These studies indicate that operations at the Tynagh Mine are unlikely to continue beyond the end of 1979 and may terminate sooner.

In addition to the uncertainties regarding metal prices the other critical area is that of mine production which must achieve average levels of at least 50,000 tons of ore per month throughout the period in order to avoid operating losses at current prices and forecast grades of ore. Mine production for the first quarter of 1978 totalled only 102,163 tons and the accompanying sharp

reduction in concentrate output to 9,269 tons was greater than expected.

There was, however, a decided improvement during April of this year.

During 1978 about one third of zinc concentrate production will have to be stockpiled as the receiving smelters have placed a limit on shipments in line with their forced cutback in metal production rates.

In addition, the European producer price for zinc, which is the relevant quotation for your Company's production of this metal, has experienced three successive reductions in the past ten months representing a cumulative decline of more than 30%. Zinc prices which remained stable for over two years, fell from U.S. 36.1¢ in May, and then to U.S. 27.2¢ in early November, and during February of 1978 most European smelters further decreased their prices to U.S. 24.9¢ per pound.

Lead prices have also declined from U.S. 30.5¢ at the year end to U.S. 25.5¢ at the end of April 1978.

Revenues from the Tynagh Mine are more sensitive to changes in lead prices than to changes in prices of Zinc or Copper.



Any further erosion in the prices of zinc or lead coupled with increases in operating costs or a fall off in production would probably render the Tynagh Mine operations uneconomic and would have obvious implications with respect to the continuity of mining operations.

Management has for a number of years consistently emphasized a high level of exploration on the mine property and its adjacent areas to locate additional ore reserves. These efforts, to date, have not been successful. The 1978 budget for exploration in the mine and adjacent is \$300,000 and will feature a very substantial surface diamond drilling program.

### Investments

Your Company has followed a policy of maintaining a strong cash position to ensure sufficient resources to enable it to take advantage of any desirable investment opportunity that may be presented and which is compatible with the Company's operations. While no major investments were made during the year, notwithstanding investigations of several projects, the Company is intensifying its efforts for suitable acquisitions or investments to ensure its continuity and future profitability.

Emphasis is being placed on energy-related investment opportunities.

Your Company's two main investments are its approximate 9.9% interest in Tara Exploration and Development Company Limited and a 5.2% direct (9.6% combined direct and indirect) interest in Vestgron Mines Limited. The combined market value of the direct share ownerships in these two companies at the 1977 year end was approximately \$11.5 million which compares with \$13 million a year earlier.

Details concerning your Company's principal associated companies and investments are set out in pages 14 to 17 of this Annual Report.

### Organization

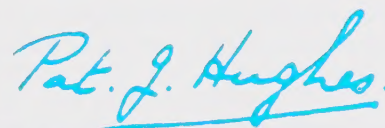
Messrs. J. K. McCausland and George M. Wilson retired as Directors of the Company, effective as of July 13, 1977. Mr. McCausland and Mr. Wilson have served on your Board from 1963 and 1965 respectively, and during their long terms of office each contributed substantially to the growth of the Company.

Mr. William James, Executive Vice-President, Noranda Mines Limited, and Mr. Brendan Hynes, Deputy Chairman and Chief Executive Officer, Tara Mines Limited, were appointed to fill the vacancies on the Board of

Directors occasioned by these retirements. In addition, Mr. Hynes was appointed a Vice-President of the Company.

Mr. James and Mr. Hynes are also Directors of Tara Mines Limited, the operating subsidiary of Tara Exploration and Development Company Limited. Their appointments to the Board of Directors of Northgate also reflect the increase in ownership in Northgate to 22% by Tara Exploration and Development.

On behalf of the Board,



President

May 1, 1978  
Toronto, Canada

### Annual Meeting

*The Annual Meeting of Northgate Exploration Limited will be held at 3:30 p.m. (Toronto time) on Wednesday, June 21st, 1978 in the Territories Room of the Royal York Hotel, 100 Front Street West, Toronto, Ontario.*

*Formal notice of the meeting will be sent to the share owners with the proxy statement during May.*





## REVIEW OF TYNAGH MINE OPERATIONS

During the year a total of 616,388 tons of ore was treated at an average rate of approximately 1,707 tons per operating day. Of the total treated, approximately 295,000 tons came from the Zone III area of the mine and the balance from Zone II. This compares with 594,823 tons treated in 1976 at an average rate of approximately 1,680 tons per operating day.

The grade of ore fed to the dense media plant was:

	Lead %	Zinc %	Copper %	Silver ozs/ton
1977	3.56	3.04	0.19	1.52
1976	4.00	3.02	0.19	1.70

### Concentrate Production and Recoveries

The following is a summary of concentrate production for 1977 with comparative figures for 1976:

	1977	1976
Tons of lead concentrate .....	25,053	26,847
Tons of zinc concentrate .....	27,491	25,797
Tons of bulk concentrate .....	5,309	3,455
Tons of copper concentrate .....	1,648	2,961
Totals .....	<u>59,501</u>	<u>59,060</u>

Metallurgical recoveries in 1977 compared with 1976 were as follows:

	Recoveries			
	Lead %	Zinc %	Copper %	Silver %
1977 .....	90.1	80.8	78.6	74.6
1976 .....	87.9	77.2	80.7	76.7

### Payable Metals and Concentrate Sales

The approximate totals of payable metals in concentrates sold during 1977 and 1976 were as follows:

	1977	1976
Lead (in millions of pounds) .....	37.0	38.0
Zinc (in millions of pounds) .....	20.9	26.6
Copper (in millions of pounds) .....	0.1	0.8
Silver (thousands of ounces) .....	512	482

Concentrate sales during 1977 included 543 tons of copper concentrate as compared with 2,806 tons in 1976.

### Metal Prices

The following table shows the average metal prices received from sales of concentrates during 1977 with comparative prices for 1976, as well as the average quoted prices for 1977. Prices are based on London Metal



Exchange quotations for lead, copper and silver, and the G. O. B. European producer price for zinc, all expressed in equivalent U.S. funds.

	1977	1976	Quoted Average 1977
Lead — per lb. ....	28.4¢	22.0¢	27.6¢
Zinc — per lb. ....	32.5¢	36.2¢	32.6¢
Copper — per lb. ....	55.0¢	62.1¢	59.4¢
Silver — per oz. ....	\$4.74	\$4.41	\$4.62

The G. O. B. European producer price for zinc, which had remained stable for over two years at the equivalent of 36.1¢ per lb., was reduced during May, 1977 to 31.8¢ per lb. and again in November, 1977 to 27.2¢ per lb. Subsequent to the 1977 year end there was a further reduction in the price of zinc to 24.9¢ per lb. The approximate L.M.E. price for lead, at the end of April, 1978, was 25.5¢ per lb.

### Mine Operating Costs

Direct operating costs per ton of ore mined and treated during 1977 increased to \$14.74 from \$12.02 in 1976 due to general increases in the cost of labour, materials and services.

### Production Schedule for 1978

The 1978 production schedule envisages the treatment of approximately 550,000 tons of ore, yielding an estimated 55,000 tons of concentrate. Because of the over-supply in the zinc market, deliveries of zinc concentrates will be adjusted from time to time to coordinate with the metal production rates of receiving smelters. In 1978, sales are expected to total about two-thirds of forecast zinc concentrate production.

Sales contracts have been negotiated covering all anticipated copper production through 1980, together with stocks presently on hand. Sales of this material, from production and stocks, during 1978 are expected to total approximately 4,800 tons, some of which will be sold in the form of a blend with lead concentrates.

### Ore Reserves

The underground ore reserves are located in Zone II, which occurs beneath and adjacent to the boundary of the open pit and in Zone III, which lies approximately 600 feet to the east. By the end of 1976, underground diamond drilling had established the ore reserves in Zone III and in 1977, further development openings were driven and more detailed plans formulated for the mining of the orebodies in the zone.

The following table shows the mineral content of the proven ore reserves as of December 31, 1977:

Location	Tons	Lead %	Zinc %	Copper %	Silver oz./ton
Zone II	225,000 <sup>(1)</sup>	3.09	2.93	0.49	1.09
Zone III	1,257,000 <sup>(2)</sup>	4.36	3.41	0.18	0.92
Total	1,482,000	4.17	3.34	0.23	0.95

(1) Includes a dilution allowance of 5% waste at zero grade.

(2) Includes a dilution allowance of 10% waste at zero grade because higher dilution in the mining of ore from this zone is expected.

The Zone II and Zone III reserves noted above exclude approximately 212,000 tons and 454,000 tons respectively which were contained in the stated reserves as of December 31, 1976. The Zone II material has been excluded because it is located in isolated pockets, the mining of which is not commercially feasible under existing conditions.

The Zone III material has been excluded following the reassessment of certain areas of mineralization under current market conditions and after taking into account the design of the various mining blocks or stopes and provision for ground support pillars within the orebody which are unlikely to be recoverable.



Raise Boring —  
Tynagh Mine.



## EXPLORATION

During 1977 your Company continued with its exploration programs in Ireland, Canada and U.S.A. Exploration expenditures by Northgate and its wholly owned subsidiaries amounted to \$2.4 million of which the major portion (\$1.7 million) was spent in Ireland.

Your Company's exploration program in Ireland was directed principally towards the search for base metal deposits in carbonate and volcanogenic rocks. In North America the programs were primarily concerned with the search for uranium and massive sulphide deposits.

In addition to its active exploration programs, your Company carried out numerous appraisals of mineral properties with established ore reserves. However, none of these properties showed adequate rates of return on capital even allowing for buoyant metal prices and consequently are not of interest for the foreseeable future.

### REPUBLIC OF IRELAND

The main centres of activity were at the Tynagh Mine, Navan, Gortdrum, Kildare and S. E. Leinster areas. While no intersections of economic significance were encountered in drilling operations, results generally were encouraging. Further intensive exploration is planned for 1978.

Since early 1976, your Company's wholly owned subsidiary, Irish Base Metals Limited, together with Tara Prospecting Limited, have been

engaged in a regional exploration program for uranium in Ireland. The program is being carried out in conjunction with the E.E.C. and has been partly funded by it in the amounts of approximately \$85,000 in 1976-77 and \$275,000 in 1977-78.

The earlier phase of the program was primarily concerned with an airborne radiometric survey of various geological environments in Ireland considered to have potential for uranium mineralization. This was followed by ground investigation of the considerable number of airborne anomalies located which has now identified several areas warranting detailed exploration work and diamond drilling is now planned for certain of the areas during the summer months.

**Tynagh Mine Area** — Drilling on the Tynagh Mine Lease and adjoining area is part of a major program to test geological targets in close proximity to the base metal mining operation. Several areas of structural complexity have been outlined, some of which have minor base metals associated with them. Follow-up work in these areas is continuing with emphasis again being placed on diamond drilling. A sum of \$300,000 has been budgeted for work in this area during 1978.

continued





*Underground drilling at Tynagh Mine.*



## **CANADA**

The principal emphasis of exploration activity in Canada during 1977 included two substantial programs in the Johan Beetz uranium area of Quebec, involving two separate joint ventures, the first with associated Westfield Minerals Limited (NGX 75% — WFD 25%) and the second with a subsidiary of Noranda Mines Limited, Norex (NGX 49% — NX 51%).

**Quebec** — Your Company's Quebec subsidiary held 346 claims in the Baie Johan Beetz area of Quebec. During 1977 exploration work consisted of ground location of airborne anomalies and preliminary exploration work. Ground scintillometer surveys, shallow percussion drilling and trenching have outlined widespread low grade uranium mineralization with small areas of higher grade material.

Metallurgical test work on a 10 ton bulk sample from the Desherbiers property has given satisfactory results. Exploration work during 1978 will be directed toward further examination of the radioactive anomalies on the properties.

## **ALASKA, U.S.A.**

Your Company continued with its exploration program on the Seward Peninsula in conjunction with associated Westfield Minerals Limited. Drilling encountered minor base metal mineralization associated with pyrite stringer zones in volcanic rocks, but nothing of economic significance was located.

## **ISLE OF MAN**

Diamond drilling was carried out to test geochemical and geophysical anomalies on the prospecting licence covering an area of Carboniferous Limestone to the south of the Island. No mineralization of economic significance was encountered and it has been decided to discontinue the exploration program.

## **GENERAL**

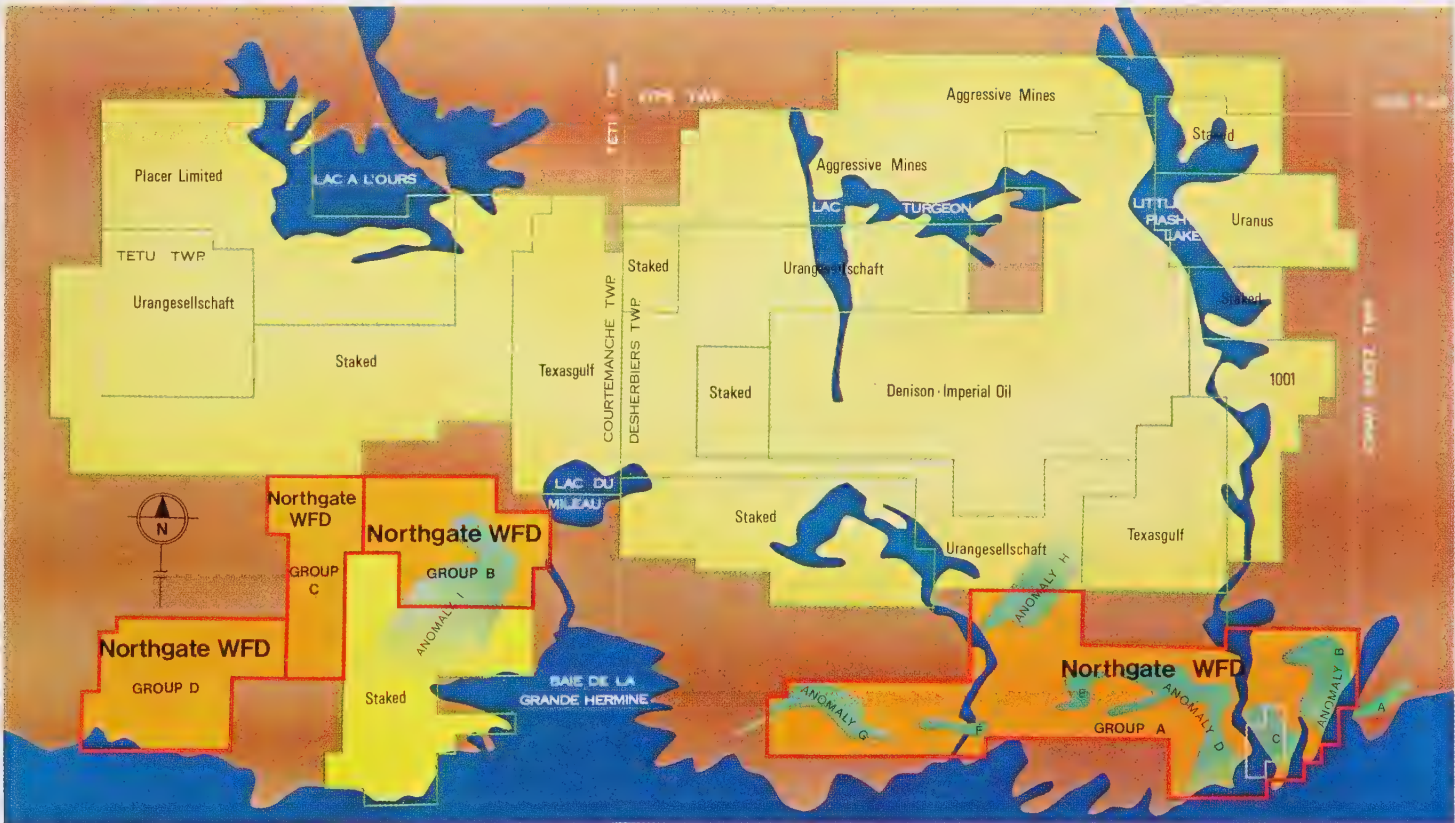
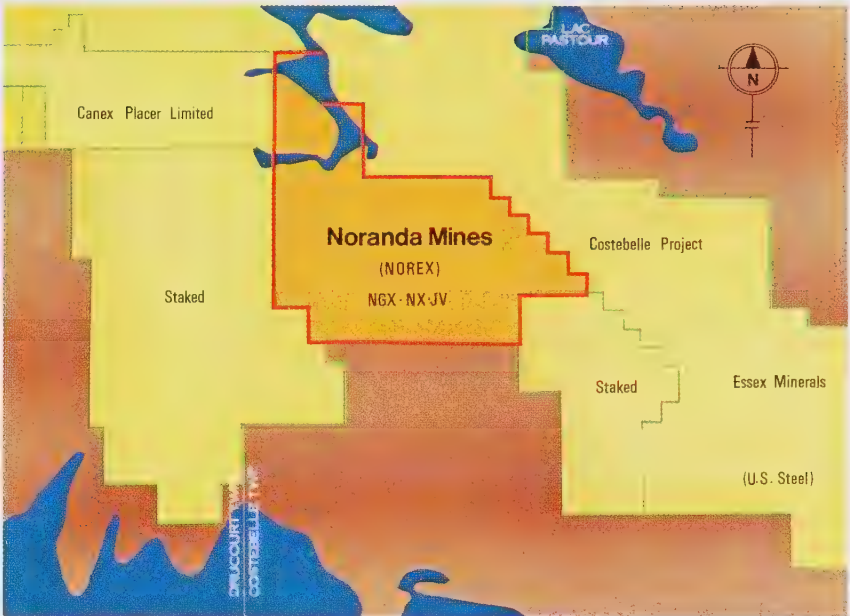
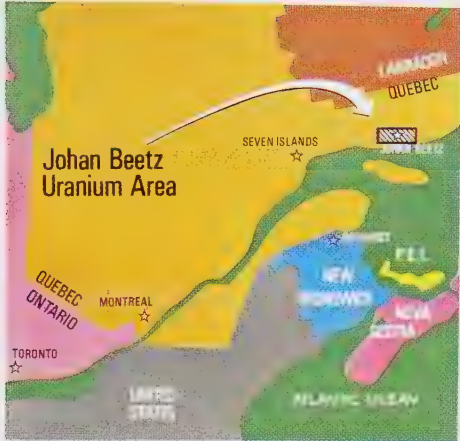
During 1977 exploration programs were also completed in British Columbia, Nova Scotia and Newfoundland, Canada. Results were not sufficiently encouraging to warrant further expenditure and these programs have now been terminated.

Your Company's exploration program for 1978 will concentrate on the search for massive sulphide deposits and uranium. The main emphasis of the program will be exploration of the Company's prospecting licences in Ireland. The Tynagh Mine Lease and adjoining prospecting licences, where a \$300,000 drilling program is planned, will be the principal centre of activity.



# Northgate Exploration J/v

## JOHAN BEETZ URANIUM AREA, QUEBEC



This map was produced from various sources, none being official or certified, all property boundaries are approximate.  
 James H. Priest • Drafting Services Whitby, Ontario



## ASSOCIATED COMPANIES AND PRINCIPAL INVESTMENT HOLDINGS

### **ANGLO UNITED DEVELOPMENT CORPORATION LIMITED (Northgate Interest — Direct 24%)**

Exploration activity in the 1976-1977 fiscal year was a continuation of work on the group of prospecting licences in the Republic of Ireland under the joint venture agreement between the company's wholly owned Irish subsidiary, Munster Base Metals Limited, Société Minière et Métallurgique de Penarroya ("Penarroya") and Preussag Aktiengesellschaft Metall ("Preussag").

The company announced on March 29, 1978 that during the course of a recent instrumentation reconnaissance survey for radioactive minerals in County Donegal, Republic of Ireland, a zone of significant radiometric readings was detected. The zone extends over two prospecting licence application areas and has a strike length in excess of 15,000 feet and widths of up to 60 feet. No ore grade uranium assays have yet been obtained in this zone.

The two prospecting licence application areas in question are part of an area covered by a group of four licences which were applied for by the company's wholly-owned Irish subsidiary, Munster Base Metals Limited in July 1975 and were offered to the company by the Minister for Industry, Commerce and Energy and were accepted by Munster in January 1978.

The four Donegal licences, which cover a combined area of approximately 72 square miles, are included in the group of 11 prospecting licences advertised for issue to Munster by the Minister on April 8, 1978.

The company plans an intensive program to evaluate the significance of this zone in conjunction with its general program of exploration over these and adjoining licence areas.

Other interests in Ireland include a participation in a group of licences in the Connemara where earlier investigations have indicated scheelite (tungsten) occurrences, and diamond drilling is currently in progress.

Revenue for the 1977 fiscal year from dividends, interest and other income, and oil lease rentals, totalled \$126,004 and exploration expenditures, including the M. P. & P. Project, amounted to \$125,935. Working capital at October 31, 1977 amounted to \$291,400. Anglo United and its wholly owned investment subsidiary hold 246,333 shares of Northgate.

### **WESTFIELD MINERALS LIMITED (Northgate Interest — Direct 45%)**

Westfield is a mineral exploration and investment holding company whose principal assets include substantial minority shareholdings in Northgate Exploration Limited, Vestgron Mines Limited, and Whim Creek Consolidated N. L. Reference is made to the appended corporate profiles for current information regarding Vestgron Mines Limited and Whim Creek Consolidated.

### **General Exploration**

During 1977, Westfield participated in various joint venture programs with Northgate Exploration Limited including uranium exploration in the Johan Beetz area, Quebec (WFD 25%).



Reference is made to the Johan Beetz and joint venture program set out in the exploration section of the Northgate Annual Report on page 12.

On its own account, Westfield staked 11 claims in Nairn Twp., Ontario to cover an area containing radioactive sandstone-greywacke on which preliminary reconnaissance prospecting was carried out; and a group of 41 claims staked in McArthur Twp., Ontario to cover a lead-zinc showing with associated gold-silver mineralization. Limited program of prospecting conducted during 1977 with follow-up work scheduled for the current year.

During the year, Westfield's subsidiary Here Fault Copper Limited reached agreement in principle with Quebec government sponsored Soquem covering the 682 acre copper prospect in Rouyn Twp., Quebec. Under the terms of the proposed agreement with Soquem the latter can earn up to a 50% interest in the property through the expenditure of \$200,000 in exploration over a three-year period. The agreement contemplates an expenditure of up to \$100,000 during 1978.

Subsequent to the 1977 year end, Westfield acquired a 7.5% working interest in a joint venture with Cairn Petroleums Limited involving the drilling of a test gas well on a 3.5 section tract in the Slave Point area, B.C. By contributing \$70,000 representing approximately 10% of the estimated drilling and other costs, Westfield will be entitled to a 7.5% working interest until payout, thereafter reducing to an earned interest of 3.65% in the well and the undrilled 2.5 sections.

The test well was spudded on March 8th and reached a depth of 1,915 feet by March 18th when drilling was suspended due to early spring breakup. Drilling is scheduled to resume in late December.

## Investments

Westfield's principal investments consist of the following:

**Northgate Exploration Limited**  
— 936,619 shares, direct interest 13.6%

**Vestgron Mines Limited** —  
414,510 shares, direct interest 9.8%, indirect interest 0.7%

**Whim Creek Consolidated N.L.**  
— 2,500,000 shares, direct interest 22.5%, indirect 4.3%

The approximate combined market value of these investments as at December 31, 1977 was \$9.7 million compared with \$13 million at the 1976 year end.

## Financial

Westfield's exploration expenditures during 1977 amounted to \$304,098 compared with \$726,411 in 1976, and revenue, representing interest on bank deposits, short-term investments, dividend income and foreign exchange gains, totalled \$304,689 compared with \$80,439 in the previous year.

Consolidated net loss for the year amounted to \$321,498 which compares with a loss of \$418,400 in 1976. The principal item contributing to the loss during the year was the write-off of exploration expenditures totalling \$657,800. Other exploration expenditures have been deferred in accordance with the company's accounting policies.

Working capital at the 1977 year end was \$504,296 compared with \$575,385 at the previous year end.

## WHIM CREEK CONSOLIDATED N.L.

(Northgate Interest — Direct 31.5%)  
— Indirect 10.1%)

Whim Creek is active in exploration both on its own account and in conjunction with other companies, principally in the

West Pilbara region in the vicinity of Roebourne, and in the Meekatharra and Eastern Goldfields areas, Western Australia. In addition to its exploration activities, which in 1977 were mainly directed toward gold properties, the company was actively engaged in metallurgical and engineering studies on its Whim Creek-Mons Cupri oxide copper deposits and the Meekatharra gold deposits.

At December 31, 1977 the property holdings of Whim Creek Consolidated and its subsidiaries involved a combined area of 16,670 hectares.

## Mining Operations

The high grade copper ore mined by open pit at Whundo during 1976, yielding approximately 6,000 metric tons grading 24.5% copper, was shipped in late June and final settlement was received before the end of the year. The settlement price was A\$1,339 per metric ton and the resultant operating profit was A\$725,216.

NOTE: All dollar figures are in Australian funds (A\$1.00 equals \$1.25 in Canadian funds).

## Whim Creek-Mons Cupri Deposits

Metallurgical and engineering studies relating to a possible leaching operation based on the Whim Creek-Mons Cupri oxide copper deposits are nearly complete. The Whim Creek deposit is owned outright by the company and agreement in principle has been reached with Texasgulf Australia to acquire the rights to the Mons Cupri oxide deposit. The combined ore reserves of acid leachable ore (proved and possible) for the two deposits are 3,360,000 metric tons of 1.4%

continued



copper. Both deposits could be mined by open pit methods at acceptable waste/ore ratios. There is sufficient extractable copper to provide for production of 6,000 tons per year of copper cathodes over about six years.

Results of investigations to date are technically encouraging, however, final conclusions will be strongly influenced by both the current and long term outlook for copper prices.

### **Gold Properties**

The pilot scale heap leaching test evolving around the Meekatharra gold properties which commenced in late 1976 was completed in May, 1977. Further test work necessary for metallurgical and engineering design purposes, is in progress.

Percussion drilling of the Haveluck deposit has shown possible ore reserves of 855,000 metric tons grading 2.5 grams per ton (0.08 oz/ton). The possible ore reserves for the other properties comprising the Meekatharra Joint Venture Agreement are 1.3 million metric tons averaging 3.9 grams per ton (0.129 oz/ton).

These reserves occur within 50 meters (about 160 feet) of the surface and the deposits would be amenable for mining by open pit methods with an acceptable waste to ore ratio. Late in 1977, the company acquired the interest of one of the joint venture partners in the Meekatharra Joint Venture and as a result Whim Creek now has the right to earn a 50% interest (formerly 25%) in the properties which consist of 38 gold mining leases.

It is contemplated that on completion of the current additional test work, consideration can be given to start-up planning for the treatment of these ores.

### **Financial**

Whim Creek's exploration expenditures for the year, including costs of feasibility studies and metallurgical test work, amounted to approximately A\$587,000. Working capital at December 31, 1977 was A\$1,104,708 compared with A\$1,083,983 a year earlier.

### **TARA EXPLORATION AND DEVELOPMENT COMPANY LIMITED**

**(Northgate Interest — Direct 9.97%)**

The large zinc-lead mine and related 7,000 metric ton per day concentrator at Navan, Ireland, 75% owned by Tara Exploration and Development, was completed during the first half of 1977 and achieved commercial production at the year end. The concentrator commenced start-up operation during June and has proceeded satisfactorily. No major design problems were experienced and commercial grade concentrates were produced. Customary minor modifications and adjustments were carried out and such refinements will continue during 1978 to improve further operating efficiency.

Mining was seriously disrupted by a prolonged slowdown by underground employees, culminating in a six weeks stoppage during the fourth quarter.

During the tune-up period to December, a total of 789,700 short tons of ore grading 9.9% zinc and 2.0% lead was treated in the concentrator and a resultant

concentrate production of 145,800 tons. The metal content of the concentrates produced amounted to 71,200 tons of zinc and 10,700 tons of lead.

Current operating schedules envisage the treatment of approximately 5,000 metric tons of ore per day during the first half of 1978, thereafter increasing to the design rate of 7,000 metric tons daily in late 1978.

Ore reserves at year end were 67.3 million tons grading (undiluted) 11.0% zinc and 2.4% lead.

During 1977, Tara Exploration and Development increased its ownership in Northgate Exploration Limited from 7% to 22%.

### **VESTGRON MINES LIMITED**

**(Northgate Interest — Direct 5.2%)  
Indirect 4.4%)**

Vestgron Mines Limited, 62.5% owned by Cominco Ltd., reported net earnings for 1977, \$5,721,000 equal to \$1.35 per share against \$15,572,000 or \$3.68 per share in 1976. Earnings are obtained from the mining operations at the Black Angel Mine of the company's wholly owned Danish subsidiary, Greenex A/S, in West Greenland.

Concentrate production in 1977 amounted to 132,300 metric tons of zinc concentrate and 39,500 tons of lead concentrate from the treatment of 553,600 metric tons of ore grading 15.1% zinc and 6.1% lead. The comparable production figures for 1976 were 142,800 tons of zinc concentrate and 37,900 tons of lead concentrate from the treatment of 601,800 tons grading 14.7% zinc and 5.2% lead.



Revenue in 1977 amounting to \$42,847,000 came from the sale of 137,941 tons of zinc concentrate and 44,053 tons of lead concentrate. This compares with \$49,234,000 in 1976 from the sale of 172,962 tons of zinc concentrate and 44,053 tons of lead concentrate.

During the year, Greenex repaid \$9,708,000 on its term loans, leaving a balance outstanding at year end of \$15,086,000. Greenex also paid \$3,205,000 to Vestgron by way of dividends and this amount was used to redeem the balance of the 10% Income Debenture.

Vestgron reported that 1977 earnings were adversely affected by decreased volume of zinc sales and depressed European zinc prices, together with moderate increases in operating and exploration costs. A six-week work stoppage interrupted production in June and July. These adverse effects were partially offset by strong demand and higher prices for lead concentrate.

Reported ore reserves at December 31, 1977 were 3,574,000 metric tons grading 4.6% lead and 12.4% zinc compared with 3,571,751 tons grading 4.9% lead and 13.9% zinc a year earlier.

Vestgron also reported that underground and surface exploration in 1977 outlined an easterly extension of the Cover Zone which is still open. This exploration, coupled with development within the Angel Zone, located an amount of new ore approximately equal to production. The surface drill program also located two new areas of mineralization approximately 800 metres southeast and northeast of the present Cover Zone boundaries. These represent targets for further exploration.

## **IRISH WIRE PRODUCTS LIMITED**

**(Northgate Interest — Direct 29.8%)**

Northgate's wholly owned subsidiary, Irish Base Metals Limited acquired 29.8% of the issued capital of Irish Wire Products in late 1977 at a cost of \$458,000.

Irish Wire Products Limited is an Irish public company engaged in the manufacture and distribution of fastening products including nails and woodscrews. Earnings per share for the fiscal year ended March 31, 1977, before extraordinary items, amounted to approximately \$0.272 per share; extraordinary items providing an additional \$0.11 per share.



# Northgate Exploration Limited

(Incorporated under the laws of Ontario)

## Consolidated Balance Sheet as at December 31, 1977 and 1976

Expressed in Canadian dollars

### ASSETS

#### Current Assets

Cash including short-term securities, deposits and accrued interest .....

Smelter settlements outstanding at estimated net realizable value .....

Concentrates and metal on hand (note 1(c)) .....

Supplies at cost .....

Accounts receivable and prepaid expenses .....

#### Investments in Associated and Other Companies

Shares of associated companies (note 2) .....

Marketable securities (quoted market value, 1977, \$11,637,000; 1976, \$12,999,000), (note 3) .....

Other shares and advances at cost less amounts written off .....

#### Fixed Assets

Buildings, machinery and equipment at cost .....

Land in Ireland at cost .....

Mining claims in Canada at nominal value .....

Less accumulated depreciation .....

#### Other Assets and Deferred Charges

Development expenditures at cost, less amortization .....

Other deferred charges .....

### LIABILITIES AND SHAREHOLDERS' EQUITY

#### Current Liabilities

Bank advances .....

Accounts payable and accrued liabilities .....

Government royalty payable .....

Income taxes payable .....

Future and Deferred Income Taxes (note 4) .....

#### Shareholders' Equity

Capital Stock (note 5)

Authorized — 10,000,000 shares of \$1 par value

Issued — 6,891,699 shares .....

Contributed Surplus .....

Retained Earnings .....

Approved by the Board

W. F. JAMES, Director

M. K. PICKARD, Director

See accompanying notes



## Auditors' Report

To the Shareholders of  
Northgate Exploration Limited

We have examined the consolidated balance sheet of Northgate Exploration Limited as at December 31, 1977 and 1976 and the consolidated statements of income, retained earnings and changes in financial position for the years then ended. Our examination of the financial statements of Northgate Exploration Limited and the subsidiaries of which we are the auditors was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. With respect to the subsidiary companies of which we are not the auditors, we have carried out such enquiries and examination as we considered necessary in order to rely for purposes of consolidation on the reports of their auditors.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and 1976 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Thorne Riddell & Co.*  
Chartered Accountants

Toronto, Canada  
February 16, 1978

	1977	1976
	<u>\$30,267,000</u>	<u>\$27,865,000</u>
	846,000	2,368,000
	2,139,000	1,625,000
	628,000	511,000
	<u>640,000</u>	<u>463,000</u>
	<u>34,520,000</u>	<u>32,832,000</u>
	5,121,000	5,222,000
	12,969,000	12,972,000
	<u>37,000</u>	
	<u>18,127,000</u>	<u>18,194,000</u>
	15,455,000	15,319,000
	661,000	661,000
	<u>1,000</u>	<u>1,000</u>
	<u>16,117,000</u>	<u>15,981,000</u>
	<u>13,272,000</u>	<u>11,741,000</u>
	<u>2,845,000</u>	<u>4,240,000</u>
	600,000	1,354,000
	<u>28,000</u>	<u>28,000</u>
	<u>628,000</u>	<u>1,382,000</u>
	<u>\$56,120,000</u>	<u>\$56,648,000</u>
	1977	1976
	<u>\$ 398,000</u>	<u>\$ 474,000</u>
	4,068,000	3,345,000
	522,000	599,000
	<u>3,166,000</u>	<u>975,000</u>
	<u>8,154,000</u>	<u>5,393,000</u>
	<u>1,627,000</u>	<u>2,476,000</u>
	6,892,000	6,892,000
	6,849,000	6,849,000
	<u>32,598,000</u>	<u>35,038,000</u>
	<u>46,339,000</u>	<u>48,779,000</u>
	<u>\$56,120,000</u>	<u>\$56,648,000</u>



# Northgate Exploration Limited

## Consolidated Statement of Income

YEARS ENDED DECEMBER 31, 1977 and 1976

Expressed in Canadian dollars

### Revenue

	1977	1976
Metals .....	\$22,565,000	\$19,438,000
Deduct shipping, smelting and marketing expenses .....	8,657,000	7,830,000
	<u>13,908,000</u>	<u>11,608,000</u>

### Operating expenses

Operating expenses other than items set out below .....	9,115,000	7,363,000
Administrative and general expenses .....	1,545,000	1,427,000
Government royalty .....	247,000	190,000
Depreciation .....	1,599,000	1,806,000
Amortization of development expenditures .....	754,000	756,000
	<u>13,260,000</u>	<u>11,542,000</u>
	648,000	66,000
Exploration .....	<u>2,371,000</u>	<u>1,541,000</u>
	(1,723,000)	(1,475,000)
Share of losses of associated companies .....	(634,000)	(885,000)
Interest, dividends and sundry income .....	2,102,000	2,435,000
Exchange gains .....	30,000	315,000
Provision for decline in value of investments .....		(48,000)
Income (loss) before income taxes and extraordinary item .....	(225,000)	342,000
Income taxes (note 4) .....	<u>543,000</u>	<u>940,000</u>
Loss before extraordinary item .....	<u>(768,000)</u>	<u>(598,000)</u>
Reduction of income taxes resulting from the application of amounts expensed in prior years .....	178,000	
<b>Loss for the year</b> .....	<u>\$ (590,000)</u>	<u>\$ (598,000)</u>

### Loss per share

Loss per share before extraordinary item .....	<u>\$(0.11)</u>	<u>\$(0.09)</u>
Loss per share after extraordinary item .....	<u>\$(0.085)</u>	<u>\$(0.09)</u>



## Consolidated Statement of Retained Earnings

YEARS ENDED DECEMBER 31, 1977 and 1976

Expressed in Canadian dollars

	1977	1976
Balance at beginning of year .....	\$35,038,000	\$35,636,000
Loss for the year .....	(590,000)	(598,000)
Dividend paid (U.S. 25¢ per share) .....	(1,850,000)	
Balance at end of year .....	<u>\$32,598,000</u>	<u>\$35,038,000</u>

## Consolidated Statement of Changes in Financial Position

YEARS ENDED DECEMBER 31, 1977 and 1976

Expressed in Canadian dollars

	1977	1976
<b>Working capital derived from</b>		
Operations .....	\$ 1,476,000	\$ 3,283,000
Disposal of marketable securities .....		3,632,000
Release of cash previously deposited as collateral for guarantee (note 6) .....		2,794,000
Disposal of fixed assets .....	39,000	124,000
	<u>1,515,000</u>	<u>9,833,000</u>
<b>Working capital applied to</b>		
Shares in associated companies .....	458,000	399,000
Dividend .....	1,850,000	
Purchase of marketable and other securities .....	37,000	88,000
Additions to fixed assets .....	243,000	455,000
	<u>2,588,000</u>	<u>942,000</u>
<b>Increase (decrease) in working capital .....</b>	<u>(1,073,000)</u>	<u>8,891,000</u>
<b>Working capital at beginning of year</b>		
As previously reported .....	26,794,000	18,085,000
Reclassification of prior years (note 10) .....	645,000	463,000
As restated .....	<u>27,439,000</u>	<u>18,548,000</u>
<b>Working capital at end of year .....</b>	<u>\$26,366,000</u>	<u>\$27,439,000</u>



# Notes to Consolidated Financial Statements

YEARS ENDED DECEMBER 31, 1977 and 1976

Expressed in Canadian dollars

## 1. Summary of Significant Accounting Policies

### (a) Principles of consolidation

- (i) The consolidated financial statements include the accounts of all subsidiary companies, the most significant of which is Irish Base Metals Limited.
- (ii) The company accounts for its investment in associated companies on the equity basis. Under the equity basis, the company's equity in the net earnings or losses of associated companies is reflected in the consolidated statement of income and an adjustment is made to the value at which the investment is carried in the consolidated balance sheet (note 2).

### (b) Currency translation

Currency balances other than those in Canadian dollars are translated as follows:

- (i) Fixed assets and deferred charges (together with the related depreciation, amortization and deferred income taxes), inventories stated at cost and investments, at historical rates.
- (ii) All other assets and liabilities, at year end rates.
- (iii) Revenue and expense transactions other than depreciation and amortization, at the average rate of exchange prevailing during the year.

### (c) Concentrates and metal on hand

Concentrates and metal on hand are valued as follows:

	<u>1977</u>	<u>1976</u>
Concentrates and metal on hand other than copper concentrates, at estimated net realizable value .....	\$2,019,000	\$1,625,000
Copper concentrates at the lower of cost and estimated net realizable value .....	120,000	
	<u>\$2,139,000</u>	<u>\$1,625,000</u>

### (d) Marketable securities

The company's investments in marketable securities are carried at cost less a provision for any permanent decline in value.

### (e) Depreciation and amortization

Depreciation of fixed assets has been recorded at various rates so as to charge the cost to income over the shorter of the expected useful lives of the assets or the life of the estimated ore reserves.

Development expenditures are being amortized over the estimated life of the mine.

### (f) Exploration

The company and consolidated subsidiaries charge exploration expenditures to income in the period in which incurred. Exploration and administrative expenditures of non-producing associated mining companies are deferred as set out in note 2.

## 2. Associated Companies

The investment in shares of associated companies is carried on the equity basis:

Mineral exploration companies:

Westfield Minerals Limited .....	45%	\$2,901,000	45%	\$3,272,000
Whim Creek Consolidated N.L. ....	32%	751,000	32%	939,000
Anglo United Development Corporation Limited	24%	1,011,000	24%	1,011,000

Other company:

Irish Wire Products Limited .....	29%	458,000		
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	<u>1977</u>		<u>1976</u>	
% of shares outstanding	Carrying Value		% of shares outstanding	Carrying Value
	<u>\$5,121,000</u>			<u>\$5,222,000</u>



The company's equity in the underlying net tangible assets of associated companies is reconciled to the carrying value of the investment on the equity basis, as follows:

	1977	1976
Equity in underlying net tangible assets.....	\$2,442,000	\$2,126,000
Equity in underlying deferred exploration and administrative expenditures.....	1,114,000	1,531,000
Excess of cost of investment over underlying net book values at dates of acquisition — attributable to mineral interests.....	1,565,000	1,565,000
Carrying value on the equity basis.....	\$5,121,000	\$5,222,000

The company's share of losses of associated companies since acquisition is \$1,825,000 (\$1,266,000 at December 31, 1976).

Exploration and certain administrative expenditures of associated companies in the mineral exploration business are deferred with the intention that they will be amortized by charges against income from future mining operations or written off at the time a project is abandoned. The recovery of these costs from operations is dependent, therefore, upon the discovery of sufficient ore and the development of economic mining operations by the associated companies. The company will amortize, by charges against its interest in the income of such mining operations, the excess of cost of investment over underlying net book value at dates of acquisition.

The quoted market value of the shares in associated companies amounted to \$6,503,000 at December 31, 1977 and \$8,679,000 at December 31, 1976. However, because of the number of shares held, the quoted market value is not necessarily indicative of their realizable value.

### 3. Marketable Securities

Marketable securities include the following which are carried at cost:

	Number of shares	Cost	
		1977	1976
Tara Exploration and Development Company Limited (9.9% interest) (quoted market value 1977 — \$9,172,000; 1976 — \$9,733,000) ....	643,741	\$ 9,410,000	\$ 9,410,000
Vestgron Mines Limited (5.2% interest) (quoted market value 1977 — \$2,255,000; 1976 — \$3,080,000) ....	220,000	3,300,000	3,300,000
		<u>\$12,710,000</u>	<u>\$12,710,000</u>

The quoted market value of these holdings is not necessarily indicative of their realizable value because of the number of shares held.

Plant start-up at the Navan (Ireland) zinc/lead mine of Tara Mines Limited, a subsidiary of Tara Exploration and Development Company Limited, occurred in June 1977 but production did not reach commercial quantities until the end of December 1977.

### 4. Income Taxes

The provision for income taxes comprises the following:

	1977	1976
		(reclassified)
Current and future .....	\$1,255,000	\$1,003,000
Deferred (reduction) .....	(712,000)	63,000
	<u>\$ 543,000</u>	<u>\$ 940,000</u>

The income tax expense differs from the amount which would result from applying the statutory Canadian income tax rate to the 1977 loss of \$225,000 before income taxes and extraordinary item, and the 1976 income of \$342,000 before income taxes for the following reasons:

	1977	1976
Tax based on statutory Canadian income tax rate of 48% .....	\$ (108,000)	\$ 164,000
Non-deductible items		
Share of losses of associated companies .....	304,000	425,000
Foreign exploration expenditure .....	117,000	181,000
Provision for decline in value of investments .....		23,000
Non-taxable gain on sale of investments .....		(56,000)
Foreign income subject to foreign income tax and not subject to Canadian income tax .....	(163,000)	(120,000)
Tax effect of foreign currency translation including the effect of translating depreciation and amortization relating to foreign operations at historical rates and other income and expense items at the average rate for the year .	393,000	323,000
Income tax expense .....	<u>\$ 543,000</u>	<u>\$ 940,000</u>

Deferred income taxes relate to depreciation and amortization claimed for income tax purposes in excess of the amount provided in the accounts. Based on currently anticipated expenditures and operations, it is expected that the deferred income tax balance at December 31, 1977 will be reduced by approximately \$435,000 in 1978, \$102,000 in 1979 and \$90,000 in 1980.

The future and deferred income tax balance comprise the following:

	<u>1977</u>	<u>1976</u>
Income taxes payable in the first quarter of 1979 (1976 — first quarter of 1978) .....	\$1,000,000	\$1,137,000
Income taxes deferred because of timing difference in the recognition of certain expenses for tax and financial statement purposes .....	<u>627,000</u>	<u>1,339,000</u>
	<u>\$1,627,000</u>	<u>\$2,476,000</u>

## 5. Capital Stock

### Stock option plan

Pursuant to the Officers' and Employees' Stock Option Plan, options may be granted until June 3, 1979 on up to 300,000 shares of the company's capital stock at prices not less than 90% of the closing price for the company's shares on the Toronto Stock Exchange on the dates the options are granted.

No options were outstanding at December 31, 1977 or 1976 and no options were exercised during the years then ended.

## 6. Guarantees

The company has guaranteed the principal amount of U.S. \$2,400,000, together with the interest thereon, being part of an overrun facility in the principal amount of U.S. \$15,000,000 provided in connection with the senior financing arrangements of Tara Exploration and Development Company Limited's subsidiary, Tara Mines Limited.

## 7. Anti-Inflation Act (Canada)

The company is subject to the provisions of the Anti-Inflation Act only in relation to the restraint of dividends. These restrictions are scheduled to end in 1978.

## 8. Selected Quarterly Financial Data (Unaudited)

Listed below are financial data for each quarter in the year ended December 31, 1977 (in '\$'000s except for per share data):

	Three Months Ended			
	March 31 1977	June 30, 1977	September 30, 1977	December 31, 1977
Net				
Revenue —				
metals .....	\$ 5,026	\$ 3,194	\$ 3,366	\$ 2,322
Operating				
Income				
(loss) .....	\$ 1,813	\$ 43	\$ (179)	\$ (1,029)
Net Income				
(loss) .....	\$ 863	\$ (231)	\$ (386)	\$ (836)
Earnings (loss)				
per share ...	\$ 0.125	\$ (0.035)	\$ (0.05)	\$ (0.125)

Net income (loss) for the first and second quarters include extraordinary credits of \$103,000 and \$75,000 respectively.

Listed below are financial data for each quarter in the year ended December 31, 1976 (in '\$'000s except per share data):

	Three Months Ended			
	March 31, 1976	June 30, 1976	September 30, 1976	December 31, 1976 (reclassified)
Net				
Revenue —				
metals .....	\$ 2,464	\$ 3,646	\$ 2,952	\$ 2,546
Operating				
Income				
(loss) .....	\$ (327)	\$ 642	\$ 56	\$ (305)
Net Income				
(loss) .....	\$ 86	\$ 234	\$ (307)	\$ (611)
Earnings (loss)				
per share ...	\$ 0.01	\$ 0.04	\$ (0.05)	\$ (0.09)

## 9. Other Statutory Information

Remuneration of the company's directors and senior officers (as defined by The Business Corporations Act of Ontario) amounted to \$469,000 for 1977 and \$495,000 for 1976.

## 10. Comparative Figures

The 1976 figures reflect the reclassification of income taxes payable and future and deferred income taxes and certain expense items consistent with the presentation adopted in 1977.



## Summary of 1977 Results by Quarters

(expressed in thousands of Canadian dollars)

		Three Months Ended				Total
	March 31	June 30	Sept. 30	Dec. 31		1977
Gross selling value of metal and metal concentrates	\$ 7,633	\$ 4,960	\$ 5,606	\$ 4,366		\$22,565
Deduct shipping, smelting and marketing expenses	2,607	1,766	2,240	2,044		8,657
	5,026	3,194	3,366	2,322		13,908
Operating and administrative costs (including royalty) .....	2,611	2,572	2,985	2,739		10,907
Operating profit before the undernoted .....	2,415	622	381	(417)		3,001
Depreciation and amortization .....	602	579	560	612		2,353
Operating profit (loss) .....	1,813	43	(179)	(1,029)		648
Exploration .....	309	714	743	605		2,371
	1,504	(671)	(922)	(1,634)		(1,723)
<b>Non-operating revenues:</b>						
Equity in income (loss) of associated companies	(225)	(81)	(174)	(154)		(634)
Interest, dividends and sundry income .....	519	527	530	526		2,102
Exchange gains (losses) .....	108	(30)	72	(120)		30
Income (loss) before taxation .....	1,906	(255)	(494)	(1,382)		(225)
Taxation (charge) credit .....	1,146	51	(108)	(546)		543
Net income (loss) before extraordinary items .....	760	(306)	(386)	(836)		(768)
Extraordinary items .....	103	75	—	—		178
Net income (loss) after extraordinary items .....	\$ 863	\$ (231)	\$ (386)	\$ (836)		\$ (590)

## MANAGEMENT ANALYSIS OF THE RESULTS OF OPERATIONS YEAR ENDED DECEMBER 31, 1977 YEAR ENDED DECEMBER 31, 1976 (RESTATED)

### 1977/76:

Revenue from metals increased by \$2,300,000 (20%) principally because of a 41% increase in the lead price.

Operating expenses increased by \$1,752,000 (24%) due to general increases in the cost of labour, materials and services used by the mine.

Administrative and general expenses increased by \$118,000 (8%) due to cost increases and a higher level of activities of a general corporate nature.

The increased charge for government royalty of \$57,000 reflects the increase in income chargeable to royalty.

The \$207,000 (11%) decline in depreciation was mainly due to certain items of plant and machinery having been fully depreciated by the end of 1976.

The \$830,000 (54%) increase in exploration expenditures reflects the higher level of exploration activity in Ireland and Canada.

The company's share of losses of associated companies in 1977, which amounted to \$634,000, mainly represents write-offs by such companies of exploration expenditures incurred in prior periods. The \$251,000 decrease in this item is principally due to the profit realised by Whim Creek during 1977 on the sale of direct shipping ore produced from a small high grade copper deposit.

Interest, dividends and sundry income declined by \$333,000 (14%) principally because of decreases in profits from the sale of investments and in sundry income.

Exchange gains of \$30,000 in 1977 mainly comprise translation gains in relation to the company's U.S. dollar assets less translation losses in relation to the company's pound sterling liabilities. Exchange gains of \$315,000 in 1976 mainly comprise translation gains in relation to the company's pound sterling liabilities less exchange losses realized on the sale of short-term U.S. dollar securities and deposits.

Market declines in 1976 resulted in the provision of an additional \$48,000 for decline in value of marketable securities. There was no comparable item in 1977.

The \$397,000 (42%) decrease in income taxes is mainly due to a reduction in the provision for Irish income taxes as a result of the pre-tax loss incurred by the company's subsidiary, Irish Base Metals Limited. This pre-tax loss was mainly due to a decline in income from mining operations and higher exploration expenditures.

The 1977 extraordinary item of \$178,000 relates to income tax reductions resulting from the application of amounts expensed in prior years. There was no comparable item in 1976.

#### 1976/75:

Revenue from metals declined by \$8,733,000 (43%) principally due to the Gortdrum mine which made no contribution to consolidated revenue in the year 1976 (year 1975 — \$7,487,000) as a result of the termination of operations at the mine in August 1975. Revenue for the year 1976 was also adversely affected by a decline of 24% in concentrate production at the Tynagh mine which was partly offset by a 25% increase in the lead price.

Termination of operations at the Gortdrum mine was also the main reason for the decline of \$7,750,000 (51%) in operating expenses. Consolidated operating expenses for the year 1975 included \$6,090,000 in respect of Gortdrum. Other factors accounting for the decline were a lower tonnage of ore treated at the Tynagh mine and a reduction in operating costs as a result of the decline in value of the pound sterling.

Administrative and general expenses increased by \$267,000 (23%) due to general cost increases in particular, higher travel costs and consultancy fees.

The increased charge for government royalty of \$171,000 reflects an increase in income chargeable to royalty.

The 24% decline in depreciation and amortization charges was mainly due to the termination of operations at the Gortdrum mine in August 1975.

The \$584,000 reduction in the profit on disposal of fixed assets reflects the major disposals of fixed assets in 1975 following termination of operations at the Gortdrum mine. There was no comparable item in 1976.

The \$483,000 increase in exploration expenditures was mainly due to the activation of a joint venture program in the State of Alaska, U.S.A., during 1976.

The \$606,000 increase in the company's share of losses of associated companies was mainly due to the expensing of the company's equity in exploration expenditures incurred by Westpark Exploration Company on a group of gold placer concessions in the State of Alaska, U.S.A., as a result of Westpark's decision to terminate its option agreements with respect to such claims.

Interest, dividends and sundry income increased by \$841,000 (53%), principally due to an increase in interest income as a result of the increase in the company's holdings of cash, including short-term securities and deposits.

The \$226,000 decline in exchange gains was mainly due to the losses realized during 1976 on the sale of short-term U.S. dollar securities and deposits (1975 — gains). These losses were partly offset by an increase in exchange gains in relation to the company's pound sterling liabilities.

Market declines during 1976 resulted in the provision of an additional \$48,000 (1975 — \$240,000) for decline in value of marketable securities.

The \$599,000 increase in income tax expense was mainly due to an increase in the aggregate amount of expense items non-deductible for tax purposes.

#### Price Range of Common Shares and Dividend Payments

The following table indicates the high and low closing prices for Northgate Common shares on The Toronto Stock Exchange (the principal trading market for Northgate shares) for the periods indicated, as reported by The Toronto Stock Exchange. Also shown are the per share dividend payments made in the respective periods.

	High	Low	Dividend
1976 1st Quarter .....	6.00	3.25	—
2nd Quarter .....	5.12	4.00	—
3rd Quarter .....	4.35	3.70	—
4th Quarter .....	5.50	3.20	—
1977 1st Quarter .....	6.12	4.30	—
2nd Quarter .....	5.75	4.15	—
3rd Quarter .....	6.62	4.30	—
4th Quarter .....	4.90	4.10	US\$0.25



## FIVE YEAR COMPARAT

(expressed in thousands of Canadian dollars unless c

### Revenue — metals and metal concentrates

Operating expenses .....
Depreciation and amortization .....
Government royalty .....
Exploration .....
Profit on disposal of fixed assets .....

Equity in income (loss) of associated companies .....
Interest, dividends and profit on sale of investments .....
Exchange gains .....
Provision for decline in value of investments .....
Income (loss) before income taxes and extraordinary .....
Income taxes .....
Income (loss) before extraordinary item .....
Provision for decline in value of investments .....
Income tax credit .....
Net income (loss) for the year .....
Earnings (loss) per share .....
Income (loss) before extraordinary item .....
Extraordinary item .....
Net income (loss) per share for the year .....
Dividends paid per share .....
Number of shares used in computing earnings .....
per share .....

### YEAR END FINANCIAL HIGHLIGHTS

(expressed in thousands of Canadian dollars unless o

Working capital .....
Investments in affiliated and other companies (net) ..
Fixed assets (net) .....
Other assets and deferred charges .....
Cash deposited as collateral .....
Total invested capital .....
Future and deferred income taxes .....
Shareholders' equity .....
Shares outstanding .....
Share price high/low (during the year) .....

### FIVE YEAR COMPARATIVE SUMMARY OF PRODUCTION HIGHLIGHTS

Tons ore mined .....
Tons ore preconcentrated .....
Tons ore treated in concentrator .....
Concentrate Production .....
Lead .....
Zinc .....
Bulk .....
Copper .....
Totals .....

Tons treated in concentrator .....
Tons of concentrates produced .....
Tons of roasted concentrates produced .....
Flasks of mercury recovered .....
Tons of concentrates sold .....
Flasks of mercury sold .....

\*Certain figures 1973-1976 have been restated.

## SCOPE OF OPERATIONS

Northgate is a mining, exploration and investment holding company. Its base metal mining operations are at Tynagh, County Galway, Republic of Ireland. Production commenced in late 1965, initially from the open pit reserves and subsequently, from 1972 ore extraction began from the underground reserves. Since 1974 all ore mined was from underground reserves. The principal products of the mine are lead and zinc concentrates, some of which contain payable quantities of byproduct copper and silver. These concentrates are shipped to various European smelters.

The Company's second mine at Gortdrum, County Tipperary, commenced operation on a commercial scale in 1968 and ceased in the latter half of 1975 when ore reserves were exhausted. The principal products of the Gortdrum Mine were silver bearing copper concentrates and byproduct mercury metal.

Northgate, through various wholly owned Irish subsidiary companies, maintains an active exploration program throughout the Republic of Ireland. Northgate is also active in exploration in Canada and elsewhere, both on its own account and in joint venture with other companies.

Northgate has a number of affiliated companies, principally Anglo United Development Corporation Limited (24%), Westfield Minerals Limited (45%) and Whim Creek Consolidated N.L. (32%), which provide a wide exposure to exploration and mine development in other countries, including mining operations in West Greenland and Australia, and exploration in Ireland, Canada, U.S.A. and Australia. In addition to its shareholdings in the foregoing principal associated companies, Northgate has substantial investment holdings including an approximate 10% interest in Tara Exploration and Development Company Limited which, through its 75% owned subsidiary, Tara Mines Limited, operates the large zinc-lead mine at Navan, Republic of Ireland. The Navan Mine achieved commercial production at the end of 1977 and when at capacity operation will be the largest zinc-lead producer in Europe and ranking among the leading zinc-lead mines of the world. The \$150 million Navan mine project resulted from the 1970 discovery under substantially the same management as that of Northgate.

Northgate also holds a combined direct and indirect interest of approximately 9.6% in Vestgron Mines Limited which, through its subsidiary, Greenex A/S, operates a large zinc-lead mine in West Greenland.

Northgate and its wholly owned subsidiaries have a total of more than 400 employees, approximately 90% of whom are employed in mining operations and exploration. The Company has some 9,000 registered shareholders, mainly in Canada and the U.S.A.

# FIVE YEAR COMPARATIVE SUMMARY OF HIGHLIGHTS

(expressed in thousands of Canadian dollars unless otherwise indicated)

	1977	1976*
<b>Revenue — metals and metal concentrates</b>	<b>\$13,908</b>	<b>\$11,608</b>
Operating expenses .....	10,660	8,790
Depreciation and amortization .....	2,353	2,562
Government royalty .....	247	190
Exploration .....	2,371	1,541
Profit on disposal of fixed assets .....		
	15,631	13,083
Equity in income (loss) of associated companies .....	(1,723)	(1,475)
Interest, dividends and profit on sale of investments .....	(634)	(885)
Exchange gains .....	2,102	2,435
Provision for decline in value of investments .....	30	315
Income (loss) before income taxes and extraordinary item .....	—	(48)
Income taxes .....	(225)	342
Income (loss) before extraordinary item .....	543	940
Provision for decline in value of investments .....	(768)	(598)
Income tax credit .....	—	—
Income tax credit .....	178	—
Net income (loss) for the year .....	(590)	\$ (598)
Earnings (loss) per share		
Income (loss) before extraordinary item .....	\$(0.11)	\$(0.09)
Extraordinary item .....	0.025	—
Net income (loss) per share for the year .....	\$(0.085)	\$(0.09)
Dividends paid per share .....	U.S.\$0.25	—
Number of shares used in computing earnings		
per share .....	6,891,699	6,891,699

## YEAR END FINANCIAL HIGHLIGHTS

(expressed in thousands of Canadian dollars unless otherwise indicated)

	1977	1976
Working capital .....	26,366	\$27,439
Investments in affiliated and other companies (net) .....	18,127	18,194
Fixed assets (net) .....	2,845	4,240
Other assets and deferred charges .....	628	1,382
Cash deposited as collateral .....	—	—
Total invested capital .....	47,966	51,255
Future and deferred income taxes .....	1,627	2,476
Shareholders' equity .....	46,339	48,779
Shares outstanding .....	6,891,699	6,891,699
Share price high/low (during the year) .....	\$6.62/4.10	\$6.00/3.20

## FIVE YEAR COMPARATIVE SUMMARY OF PRODUCTION HIGHLIGHTS

	TYNAGH	
Tons ore mined .....	616,388	594,823
Tons ore preconcentrated .....	616,388	594,823
Tons ore treated in concentrator .....	473,641	423,223
Concentrate Production		
Lead .....	25,053	26,847
Zinc .....	27,491	25,797
Bulk .....	5,309	3,455
Copper .....	1,668	2,961
Totals .....	59,501	59,060
	GORTDRUM MINE	
Tons treated in concentrator .....	—	—
Tons of concentrates produced .....	—	—
Tons of roasted concentrates produced .....	—	—
Flasks of mercury recovered .....	—	—
Tons of concentrates sold .....	—	—
Flasks of mercury sold .....	—	—

\*Certain figures 1973-1976 have been restated.

NOTE



1975*	1974*	1973*
\$20,341	\$25,873	\$28,058
16,273	14,232	12,577
3,355	4,255	4,170
19	911	1,171
1,058	604	535
(584)	—	—
20,121	20,002	18,453
220	5,871	9,605
(279)	(80)	78
1,594	1,567	337
541	68	—
(240)	—	—
1,836	7,426	10,020
341	3,400	—
1,495	4,026	10,020
—	—	(900)
—	—	—
\$ 1,495	\$ 4,026	\$ 9,120
\$0.22	\$0.61	\$1.67
—	—	(0.15)
\$0.22	\$0.61	\$1.52
U.S.\$0.25	U.S.\$0.65	—
6,891,699	6,605,739	5,992,549

1975	1974	1973
\$18,548	\$16,995	\$11,957
22,272	22,394	18,589
5,715	8,102	10,142
2,144	3,142	4,389
2,794	2,724	—
51,473	53,357	45,077
2,096	3,752	—
49,377	49,605	45,077
6,891,699	6,891,699	5,992,549
\$5.00/2.85	\$8.62/2.50	\$6.75/3.95

648,477	667,119	682,734
648,477	667,119	533,026
488,372	490,356	529,417
29,734	38,084	74,400
41,988	42,511	22,807
4,277	4,849	14,363
2,037	7,038	—
78,036	92,481	111,570
354,612	491,382	330,226
14,183	13,288	7,106
4,150	6,369	7,803
423	775	1,345
17,284	12,112	13,970
—	908	1,300

otes to consolidated financial statements for additional information.

## Board of Directors

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Dublin, Republic of Ireland  
Vice-President of Finance  
Northgate Exploration Limited

**Duncan R. Derry,**  
Toronto, Canada  
President, Duncan R. Derry Limited,  
Consulting Geologists

**F. Douglas Gibson,**  
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Barrister and Solicitor  
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**Matthew Gilroy,**  
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**A. Garfield Heyes,**  
Toronto, Canada  
Vice-President  
Northgate Exploration Limited

**Patrick J. Hughes,**  
Dublin, Republic of Ireland  
President, Northgate  
Exploration Limited

**Brendan Hynes,**  
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Deputy Chairman and  
Chief Executive Officer  
Tara Mines Limited

**William James,**  
Toronto, Canada  
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**W. F. James,**  
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**Michel Trebucq,**  
London, England  
Vice-President of Marketing  
Northgate Exploration Limited

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President

**Sylvester P. Boland,**  
Vice-President of Finance

**Matthew Gilroy,**  
Vice-President

**A. Garfield Heyes,**  
Vice-President of Corporate Relations

**Brendan Hynes,**  
Vice-President

**Peter McAleer,**  
Vice-President

**Andrea H. Meldrum,**  
Vice-President of Exploration

**Michael Stuart,**  
Vice-President of Operations

**Michel Trebucq,**  
Vice-President of Marketing

**Thomas E. Kelly,**  
Secretary-Treasurer

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Dublin, Ireland

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**A. de Jaer**  
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Dublin, Ireland

**H. S. White**  
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Dublin, Ireland

**G. M. Wilson**  
Toronto, Canada

#### Officers

**Patrick J. Hughes,**  
Chairman of the Board

**Sylvester P. Boland,**  
Secretary

**Mine Manager**  
**D. H. B. FitzGerald**









AR17

# Northgate

EXPLORATION LIMITED

1977/2

**SEMI-ANNUAL REPORT**

*For the Period Ended*

*June 30*



# **NORTHGATE EXPLORATION LIMITED**

Suite 2602, Royal Trust Tower  
P.O. Box 27, Toronto-Dominion Centre  
Toronto, Canada M5K 1A1

## **Semi-Annual Report for the Period Ended June 30, 1977**

To the Shareholders:

The consolidated financial statements of income for the second quarter and the six months ended June 30, 1977 together with the consolidated statement of changes in financial position for the latter period are attached. Also included are the comparative figures for the corresponding periods in 1976.

### **Consolidated Financial Results**

Net revenue from concentrates for the second quarter amounted to \$3,194,000 and for the six months ended June 30, 1977 totalled \$8,220,000. The comparative net revenue figures for the corresponding periods in 1976 were \$3,646,000 for the second quarter and \$6,110,000 for the six months ended June 30, 1976.

Operating profit from the Tynagh Mine for the second quarter amounted to \$43,000 and for the six months ended June 30, 1977 totalled \$1,856,000. These figures are after deductions for amortization and depreciation.

The comparative 1976 figures were a profit of \$642,000 for the second quarter and \$315,000 for the six months ended June 30, 1976.

Results for the 1977 second quarter were adversely affected by a \$599,000 decline in mine operating profit compared with the 1976 second quarter, due to a decrease in concentrate production as a result of lower ore grades.

Consolidated net loss for the second quarter amounted to \$231,000 equal to 3.5¢ per share. However, cumulative consolidated net income for the six months ended June 30, 1977 amounted to \$632,000 or 9¢ per share.

The comparative figures for the corresponding periods last year were net income for the second quarter of \$234,000 equal to 4¢ per share and for the six months ended June 30, 1976 a net income of \$320,000 or 5¢ per share.

The principal items affecting net income for the six months ended June 30, 1977 compared with that for the same period in 1976 were the increase in net revenue (\$2,110,000) principally due to the increase in the price of lead; the increase in operating expenses (\$551,000) due to the general increase in the cost of labour, materials and services used by the Tynagh Mine; and the increase in exploration expenditures (\$418,000) reflecting the higher level of exploration activity during the first half of 1977.

Working capital derived from operations, which includes revenue from investments, amounted to \$1,924,000 during the first half of 1977 and working capital at June 30, 1977 was \$28,581,000.

### **Operations**

During the three months ended June 30, 1977, 162,257 tons of ore were treated at the Tynagh Mine compared with 162,943 tons for the same period in 1976.

Concentrate production for this period amounted to 12,788 tons comprising 6,556 tons of lead concentrate, 5,198 tons of zinc concentrate and 1,034 tons of bulk (combined lead and zinc) concentrate.

The comparative 1976 period concentrate production was 17,503 tons comprising 8,810 tons of lead concentrate, 7,232 tons of zinc concentrate, 497 tons of bulk concentrate and 965 tons of copper concentrate.



# NORTHGATE EXPLORATION LIMITED

## Consolidated Statement of Income (unaudited) For the Six Months Ended June 30, 1977

(expressed in Canadian dollars)

	Three Months Ended June 30		Six Months Ended June 30	
	1977	1976 <sup>(1)</sup>	1977	1976 <sup>(1)</sup>
<b>Revenue</b>				
Metals and metal concentrates ...	\$ 4,960,000	\$ 5,705,000	\$12,593,000	\$10,272,000
Deduct shipping, smelting and marketing expenses .....	1,766,000	2,059,000	4,373,000	4,162,000
	<u>3,194,000</u>	<u>3,646,000</u>	<u>8,220,000</u>	<u>6,110,000</u>
<b>Operating Expenses</b>				
Operating expenses other than items set out below .....	2,206,000	1,918,000	4,240,000	3,689,000
Administrative and general expenses .....	375,000	395,000	767,000	797,000
Government royalty (credit) .....	(9,000)	82,000	176,000	106,000
Depreciation .....	407,000	439,000	807,000	878,000
Amortization of underground and other development expenses	172,000	170,000	374,000	325,000
	<u>3,151,000</u>	<u>3,004,000</u>	<u>6,364,000</u>	<u>5,795,000</u>
Operating profit (loss) .....	43,000	642,000	1,856,000	315,000
Exploration .....	714,000	438,000	1,023,000	605,000
	<u>(671,000)</u>	<u>204,000</u>	<u>833,000</u>	<u>(290,000)</u>
Share of losses of associated companies .....	(81,000)	(87,000)	(306,000)	(87,000)
Interest, dividends and sundry income	527,000	528,000	1,046,000	1,131,000
Exchange gains (losses) .....	(30,000)	300,000	78,000	277,000
Income (loss) before income taxes .....	(255,000)	945,000	1,651,000	1,031,000
Income taxes (credit) .....	(24,000)	711,000	1,019,000	711,000
Net income (loss) .....	<u>\$ (231,000)</u>	<u>\$ 234,000</u>	<u>\$ 632,000</u>	<u>\$ 320,000</u>
Net income (loss) per share <sup>(2)</sup> .....	<u>(\$0.035)</u>	<u>\$0.04</u>	<u>\$0.09</u>	<u>\$0.05</u>

### NOTES:

- (1) Certain of the comparative figures for 1976 have been reclassified.
- (2) Based on the weighted average number of shares outstanding during each period being 6,891,699 shares.

## **Exploration**

Exploration expenditures by your Company totalling in excess of \$1 million during the six months to June 30, 1977 reflect the higher level of activity during the period compared with that of 1976. This included some 50,000 feet of diamond drilling on various prospecting licences in the Republic of Ireland with results obtained in at least four specific licence areas warranting follow-up investigation.

In various areas throughout Canada and in the U.S. State of Alaska, your Company was active on several projects, some of which are in joint venture with Westfield Minerals Limited.

### **Alaska, U.S.A.**

Geophysical surveying was completed on the Quartz Creek property in the Seward Peninsula, Alaska, followed by a limited program of diamond drilling to test two areas of lead-zinc mineralization. In the absence of significant economic results from this work, this joint venture program has been terminated.

Geophysical surveying together with soil sampling was carried out over the nearby Independence Property. In addition, a program of sampling of the underground workings where the vein has been drifted for a length of some 300 feet, was conducted. Results from this sampling as well as the geochemical soil survey are awaited in order to evaluate the property and related plans for further work in the 1978 field season.

### **Johan-Beetz Uranium Area, Quebec**

Work is progressing on certain portions of the extensive holdings (347 claims in two principal blocks) in the Johan-Beetz uranium area of Quebec which were acquired in the latter part of 1976 by your Company in joint venture with associated Westfield Minerals Limited which has a 25% interest.

Reconnaissance and detail ground radiometric surveying has now been completed over several of the numerous anomalies previously indicated by airborne survey. Results show that the majority of these anomalies warrant detailed ground follow-up work. A total of 175 Cobra holes drilled on 20-ft. centres to depths of 3 ft. and 4 ft. have provided samples for assay. In addition, bulk samples of approximately 100 lbs. each have been blasted from trenches and then crushed and processed for assay.

Preliminary and as yet incomplete assay results from the bulk sampling indicate uranium values to average slightly in excess of 0.4 lb.  $U_3O_8$  per ton, with some running considerably higher.

In addition to this joint venture undertaking with Westfield, your Company is also participating in an exploration agreement with Noranda Mines Limited in another group of 220 claims in the Johan-Beetz area. Your Company has a participating interest of 49% in this project which is being managed by Noranda.

### **Ortell Lake Area, Yukon Territory**

Your Company (60%) and Westfield Minerals Limited (40%) have reached agreement in principle with respect to a working option to explore four contiguous groups of mineral claims in the Ortell Lake area, Yukon. These properties cover a total of 206 claims extending over a length of approximately nine miles along strike and between two blocks of claims held by McIntyre Mines Limited. These claims were staked in the Fall of 1976 as tie-on ground to the original staking by McIntyre.

The terms of the contemplated agreement provide for work commitments and property payments at specified intervals over an approximate two year period at the conclusion of which Northgate and Westfield can earn a combined 51% interest, thereafter increasing, according to the financial contributions of the other participants, up to a maximum 85% interest.

It is reported that a number of mineralized showings have been located on the subject ground, the general geology of which is described as a belt of carbonate rocks containing zones of lead-zinc-silver mineralization.



Your Company and Westfield propose to carry out as much surface work as possible during the remainder of the current field season and contemplate mounting a more detailed and substantial program during 1978.

#### **Timmins Area, Ontario**

Your Company has recently acquired, under a working option agreement, a group of 75 claims in Halliday-Sothman Twps., South Timmins area, Ontario. The option agreement provides for a \$50,000 work commitment together with cash payments at specified intervals. Currently, a pulse electromagnetic survey is in progress which is to be followed by a magnetometer survey. This ground work is a follow-up of previous "Questor" airborne anomalies. Interesting lead-zinc mineralization has been found on and adjacent to this property.

#### **Taseko Lake Area, British Columbia**

Extensive reconnaissance stream sediment and lake bottom sampling has now been completed over this area in the Chilicotin Plateau outlining four main areas of interest. Detailed follow-up work is now proceeding in these areas for the duration of the 1977 field season. Bethlehem Copper Corporation is the operator of this project which has a tentative 1977 budget of \$135,000 of which Northgate is contributing its 25% interest.

#### **Maritime Provinces, Eastern Canada**

The joint venture program in the Maritime provinces of Newfoundland and Nova Scotia in which your Company has a 40% interest with Westfield holding the remaining 60%, has recently involved the drilling of three holes to test three separate anomalies indicated by geophysical surveying at the Parrsboro and Saunders Cove areas, Nova Scotia. This drilling failed to intersect any mineralization of economic significance and the 1977 field program has now been concluded.

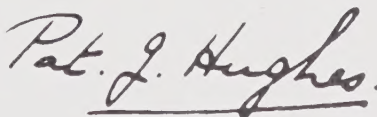
#### **Investments**

The principal investments of your Company are its shareholding of 643,741 shares (approximately 9.9%) of Tara Exploration and Development Company Limited, and the direct ownership of 220,000 shares (approximately 5.2%) of Vestgron Mines Limited. As your Company owns approximately 45% of affiliated Westfield Minerals Limited, which in turn holds 414,510 shares of Vestgron, Northgate's combined direct and indirect interest in Vestgron approximates 9.6%.

#### **General**

On July 20, 1977 Tara Exploration and Development Company Limited, through its subsidiary, purchased under private arrangement 1,000,000 shares of the capital stock of Northgate Exploration Limited, thereby increasing its ownership in Northgate from 501,714 shares (7.3%) to 1,501,714 shares (21.8%).

On behalf of the Board of Directors,

A handwritten signature in cursive script that reads "Pat. J. Hughes." The signature is written in dark ink and is positioned above a horizontal line.

"PAT J. HUGHES"  
President

August 24, 1977

# NORTHGATE EXPLORATION LIMITED

## Consolidated Statement of Changes in Financial Position (unaudited)

**For the Six Months ended June 30, 1977**

(expressed in Canadian dollars)

	Six Months Ended June 30	
	1977	1976
<b>Working capital derived from:</b>		
Operations .....	\$ 1,893,000	\$ 1,437,000
Disposals of fixed assets .....	31,000	80,000
Disposals of investments .....	—	3,632,000
Release of cash previously deposited as collateral for guarantee .....	—	2,794,000
Other .....	—	5,000
	<u>1,924,000</u>	<u>7,948,000</u>
<b>Working capital applied to:</b>		
Investments .....	37,000	31,000
Additions to fixed assets .....	100,000	97,000
Advances to associated companies .....	—	320,000
	<u>137,000</u>	<u>448,000</u>
Increase in working capital .....	<u>1,787,000</u>	<u>7,500,000</u>
Working capital at beginning of period as previously reported .....	26,794,000	17,867,000
Adjustment of prior period .....	—	218,000
As restated .....	26,794,000	18,085,000
Working capital at end of period .....	<u>\$28,581,000</u>	<u>\$25,585,000</u>